

NE Ethanol Production and Treated Seed

DATE

Background:

- AltEN is an ethanol facility located near Mead, NE. This facility has been in operation for approximately 5 years and uses treated seed corn and some amounts of other treated seed in its production process. It appears this seed is provided to the facility free of charge.
- Wet cake by-product was to be offered as a soil amendment and received approval from NDA for this use. NDA's initial approval was offered without knowledge that the facility was using treated seed.
- NDA and NDEE contacted R7 in early 2019 regarding the AltEN site. They had received numerous complaints and sought input on methods to manage the wet cake.
- NDA identified residues of numerous seed treatment pesticides. We found that OPP requires seed bag tags to include language that prohibits the use of treated seed for ethanol production unless there is an assurance of no detectable residues and NDA took steps to prevent further use of the by-product as a soil amendment.
- Following NDA's decision, NDEE determined the material to be a solid waste and has ordered the facility to landfill the wet cake.

Current Status:

- The facility continues to operate and generates approximately 150 tons of wet cake a day. It has landfilled approximately 32 K tons (1500 truckloads) of material. Estimates of remaining material range from 50 to 80 K tons.
- Recent NDEE inspection during a rainfall event indicated poor compliance with SWIP. Uncontrolled runoff (observed wet cake leaving site), poor BMPs and general housekeeping. Some colored liquid was not contained and had been pumped to a low point that discharged to an outfall leading to a stream. NDEE indicated the stream flows through a UNL research farm. A UNL professor has raised concerns to EPA and NDEE regarding alleged impacts to managed bees on the farm.
- Collection of ground water data is under way data is expected to be available in November.
- The facility has requested a permit to allow the material to be land applied as a means of disposal. NDEE requested assistance in reviewing the data and evaluating the potential for an acceptable agronomic rate that would enable the material to be land applied.
- OPP has indicated that they do not believe the product should be land applied if it contains detectable residues. Many seed bag tags include this requirement, but enforcement can be challenging. OPP is moving to include similar language in Section 3 labels to enhance enforceability.
- OPP concerns:
 - Some of the pesticides are persistent, mobile and/or systemic.
 - There are numerous active ingredients involved.
 - Unaccounted for addition of these pesticides to sites which may already be receiving applications via the actual planting of similarly treated seed.
 - Potential for the uptake of these pesticides to crops/plants on these sites where use has not been approved and for which there is no data/understanding of potential impacts.
 - Unaccounted for additions to the risk cup
- OPP's position was discussed during the last call with the state. NDEE has continued to express interest in evaluating data provided from the facility intended to support land application.

Internal Deliberative

- ORD is willing to evaluate their potential to help at some level in the evaluation of this issue but will need some guidance as to what the Region would deem helpful/appropriate.

Enforcement Considerations:

Options Discussion:

Technical Assistance

- 1 ORD requested to evaluate how best to reduce residues to non-detect levels and, an alternative to land application as disposal method. It's unclear how significant of a resource investment this may be, but it would be an approach consistent with OPP's intent with label requirements. A facility in KS does utilize smaller quantities of treated seed and some years ago, claimed to achieve no detectable residues in order to apply to their own land for disposal. Should follow-up with them reveal that to be accurate, their system could serve as a model. However, more needs understood about their processes and detection limits used.
- 2 ORD requested to evaluate the potential for land application of the material as a waste while allowing detectable residues. Resources required for this option are also unclear at this time. This option would result in one office looking for methods to do something another office views as prohibited.
- 3 Decline to investigate further, given OPPs position and resources that may be required to carry out either options 1 or 2.

Compliance